

C-Bridge™



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Company Background



- Rayfield Communications was started in 1978 as a 2-way radio dealership
- Appointed as a Motorola Dealer in 1999
- Software and hardware communications product development since 1989
- One of the first companies to join the **MOTOTRBO™** Application Developer's Program
- Located in Springfield, MO in the beautiful Missouri Ozarks

What is the c-Bridge™?



The **c-Bridge™** is an 'infrastructure solution'. It is a *Bridging Controller and Call Router*, a *Server* and a *Gateway*, all rolled into one piece of equipment. It is a 'Swiss Army Knife', a piece of equipment and associated software that allows **MOTOTRBO™** conventional and IP Site Connect repeater systems to be expanded beyond their 'core' functionality.





- **MOTOTRBO™ IP Site Connect Systems are limited to a maximum of 15 repeaters in one 'system'.**
- A **c-Bridge™** acting as a Bridging Controller can 'break' that 15-repeater limit
 - One **c-Bridge™** can control and network up to 50 repeaters
 - You can build VERY Large Systems
 - There's virtually No Limit to the Number of Repeaters that can exist in a **MOTOTRBO™** system
 - » For example there are literally hundreds of repeaters in the world-wide amateur radio DMR network, all connected using multiple **c-Bridge™** Bridging Controllers



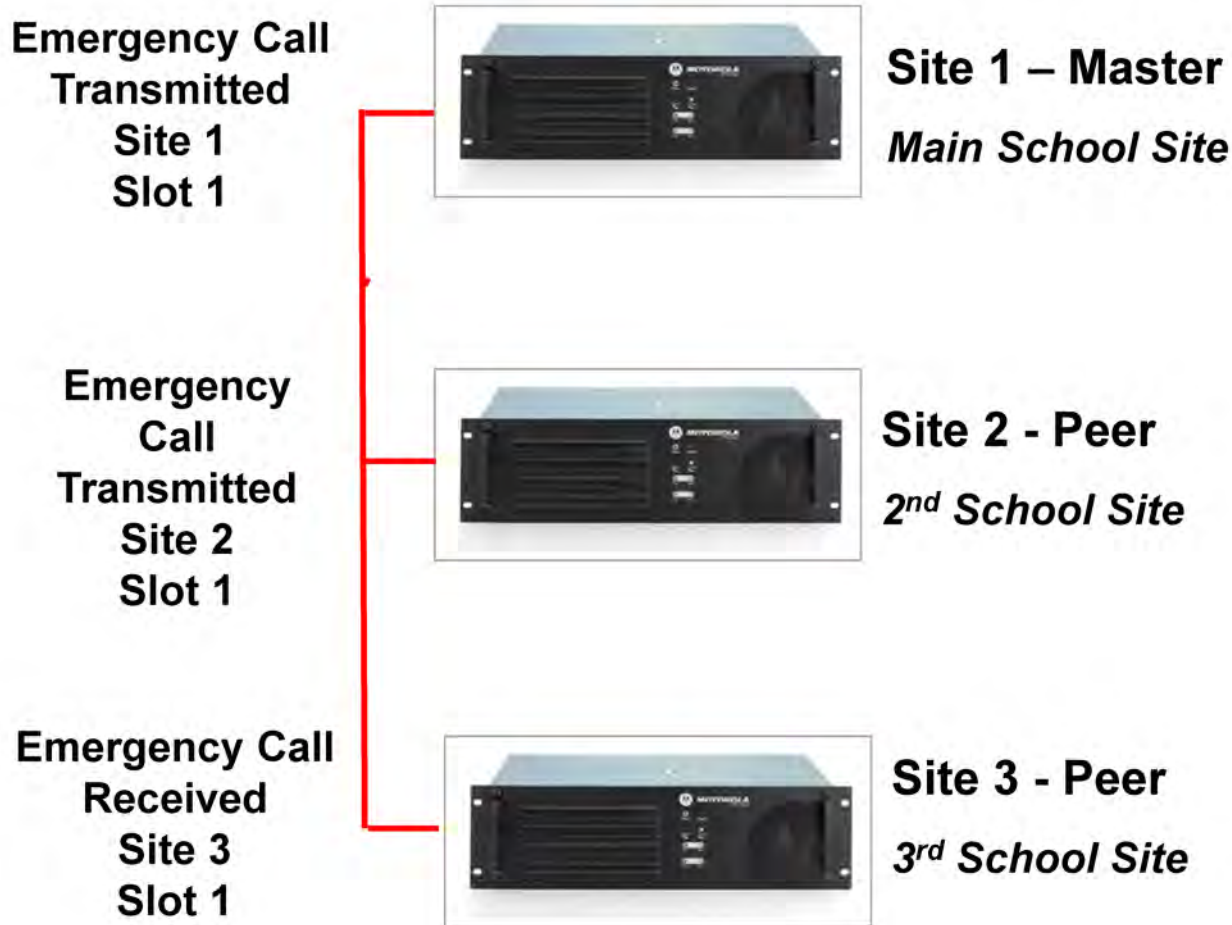
- **MOTOTRBO™ IP Site Connect provides for basic bridging capability between Slots and Talkgroup IDs**
 - Slot 1 can be bridged to Slot 1
 - Slot 2 can be bridged to Slot 2
 - Slot 1 can be bridged to Slot 1 AND Slot 2 can be bridged to Slot 2
 - No Slots bridged (local only)

 - There is no way to bridge between Slot 1 and Slot 2, not even for All Call or Emergency Calls

 - The Talkgroup ID that someone transmits on is the same Talkgroup ID that must be received – There is no provision for ‘Translation’ of Talkgroup IDs

The c-Bridge™

Emergency Call without a c-Bridge™



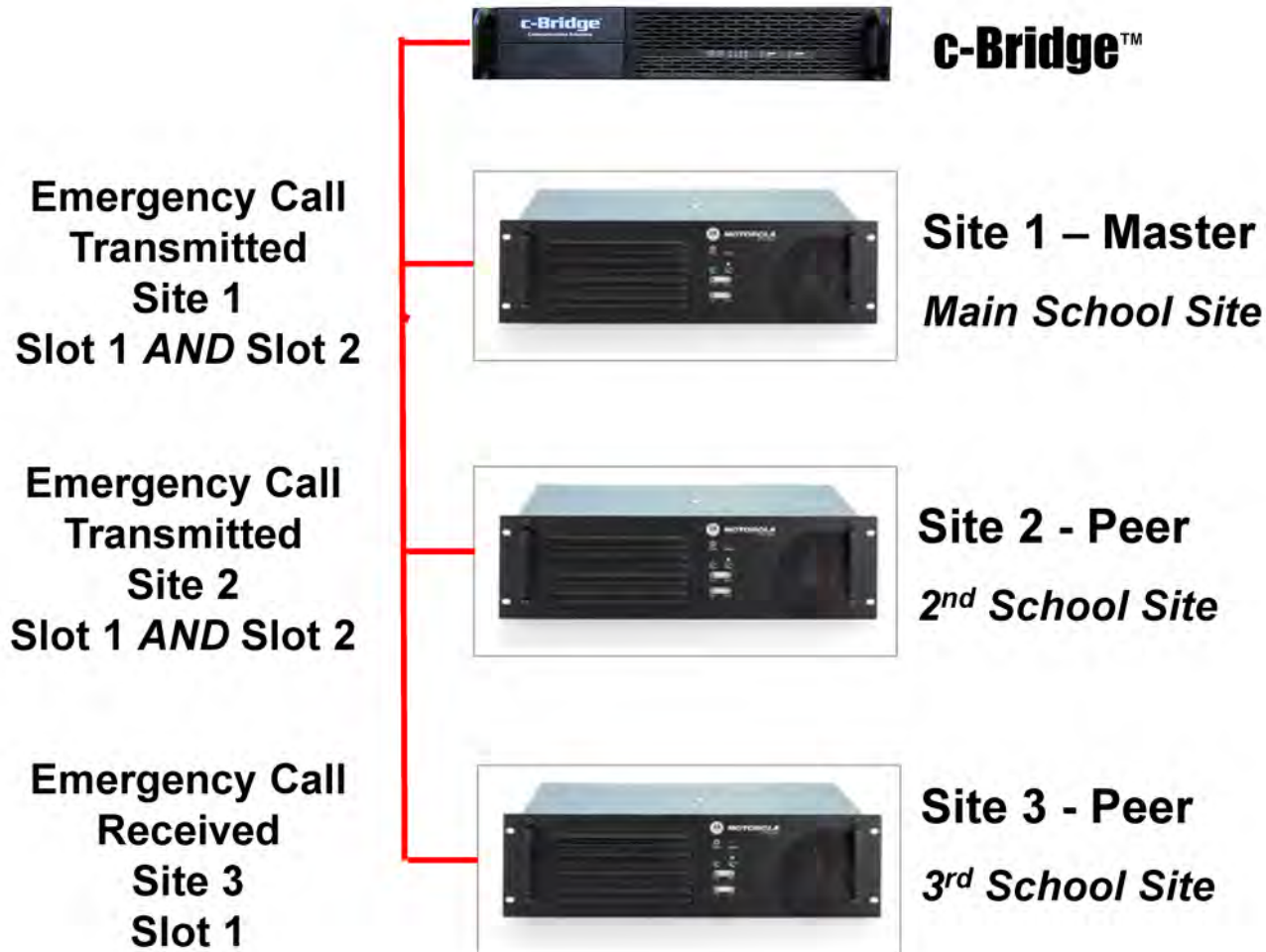
Emergency Call Transmitted
Site 3
Slot 1



- **When a c-Bridge™ is used in a MOTOTRBO™ IP Site Connect System, a tremendous amount of flexibility can be realized with regards to bridging Slots and Talkgroup IDs**
 - Slot 1 can be bridged to Slot 2
 - on any Repeater, based on Talkgroups or manually controlled from a PC Dispatch Application
 - All Call and Emergency Calls can now be true 'system wide' Calls
 - All Call and Emergency Calls can be heard on all repeaters and on both Slots, if desired
 - Any Talkgroup, on any repeater, on either Slot, can be bridged to any other Talkgroup, on any other repeater, on either Slot

The c-Bridge™

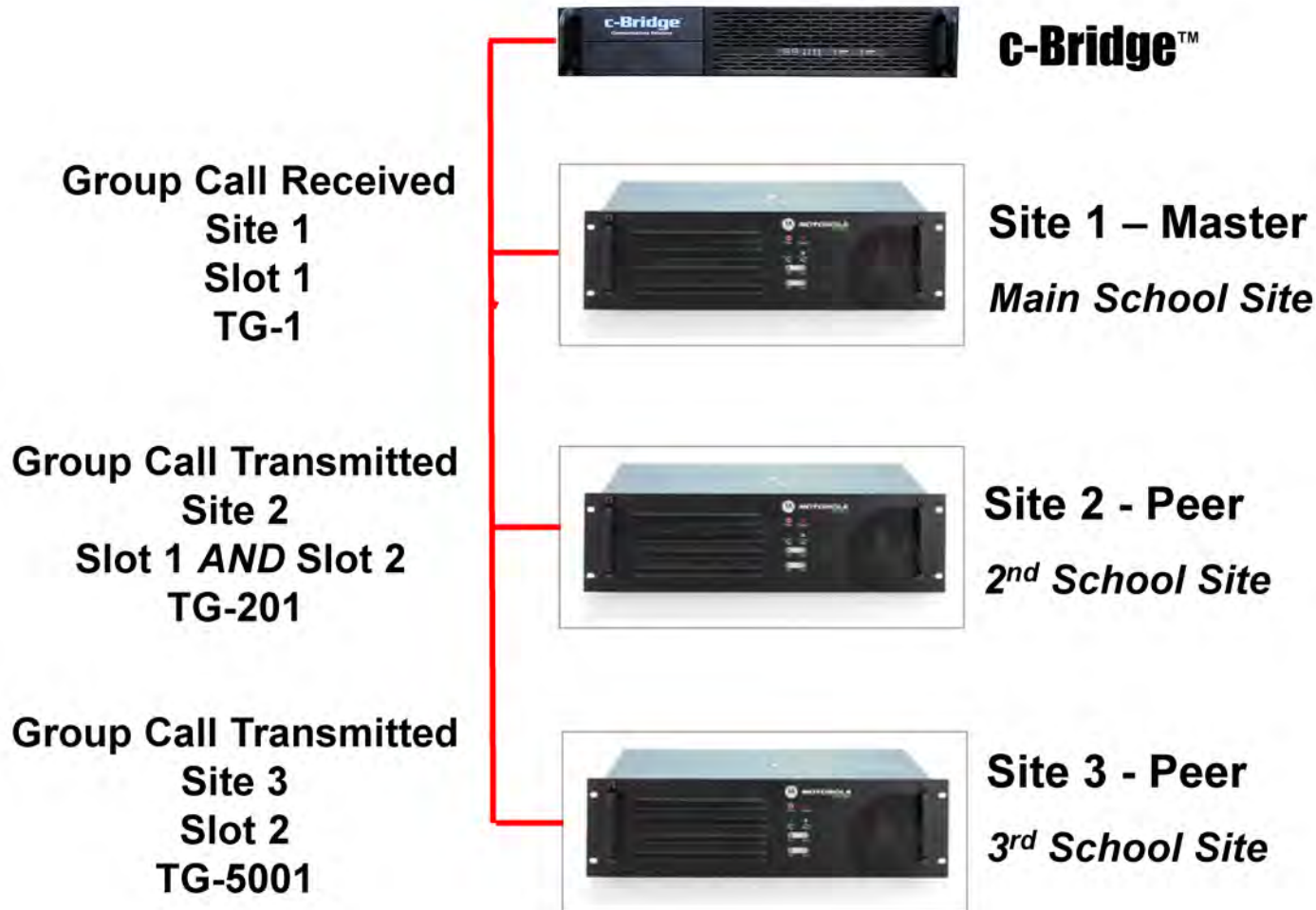
Emergency Call with a c-Bridge™



Emergency Call Transmitted Site 3 Slot 1

The c-Bridge™

Translating Talkgroup IDs with a c-Bridge™



Group Call Transmitted
Site 1
Slot 1
TG-1

The c-Bridge™

Call Capabilities - Group Calls



**Group Call
Received
Site 2
Slot 2**



c-Bridge™

**Site 1 – Master
Main School Site**

**Site 2 - Peer
2nd School Site**

**Site 3 - Peer
3rd School Site**



**Group Call
Transmitted
Site 1
Slot 1**

- **The c-Bridge™ can handle voice and data calls**
 - Group Calls, All Calls and Private Calls
 - GPS, Call Alert, Emergency Alert, Radio Query, Radio Enable/Disable, etc.

The c-Bridge™

Call Capabilities - All Calls



**All Call
Transmitted
Site 3
Slot 1**



c-Bridge™

**Site 1 – Master
Main School Site**

**Site 2 - Peer
2nd School Site**

**Site 3 - Peer
3rd School Site**



**All Call
Received
Site 1
Slot 1**

- **The c-Bridge™ can handle voice and data calls**
 - Group Calls, All Calls and Private Calls
 - GPS, Call Alert, Emergency Alert, Radio Query, Radio Enable/Disable, etc.

The c-Bridge™

Call Capabilities - Private Calls



Private Call Transmitted
Site 3
Slot 1



c-Bridge™

Site 1 – Master
Main School Site

Site 2 - Peer
2nd School Site

Site 3 - Peer
3rd School Site



Private Call Received
Site 1
Slot 1

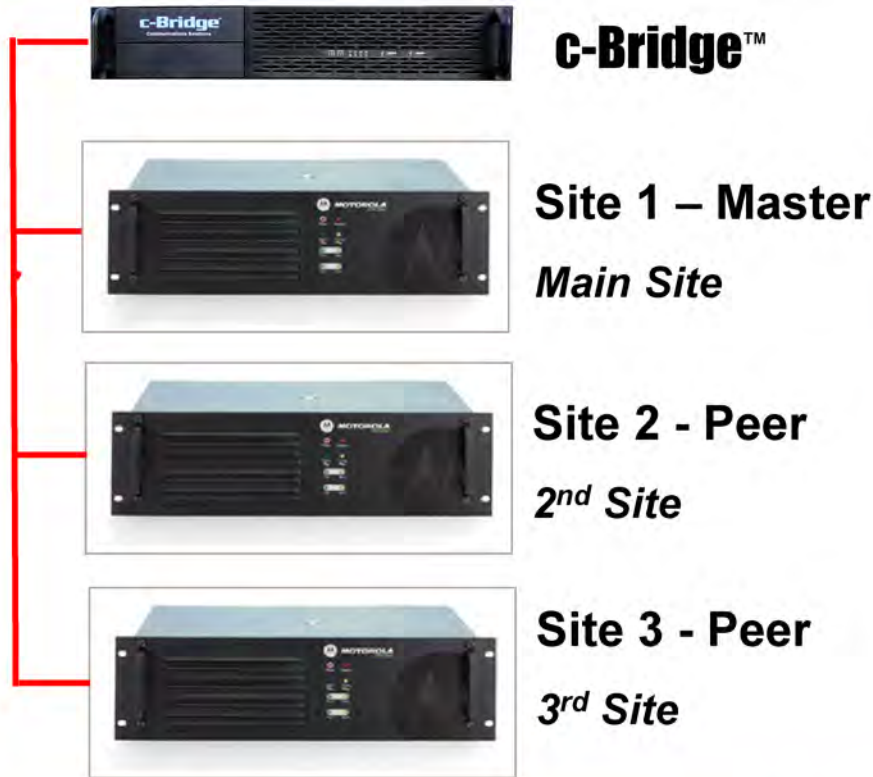
- **The c-Bridge™ can handle voice and data calls**
 - Group Calls, All Calls and Private Calls
 - GPS, Call Alert, Emergency Alert, Radio Query, Radio Enable/Disable, etc.

The c-Bridge™

Call Capabilities - Data Calls



**Data Call
Transmitted
Site 3
Slot 1**



**Data Call
Received
Site 1
Slot 1**

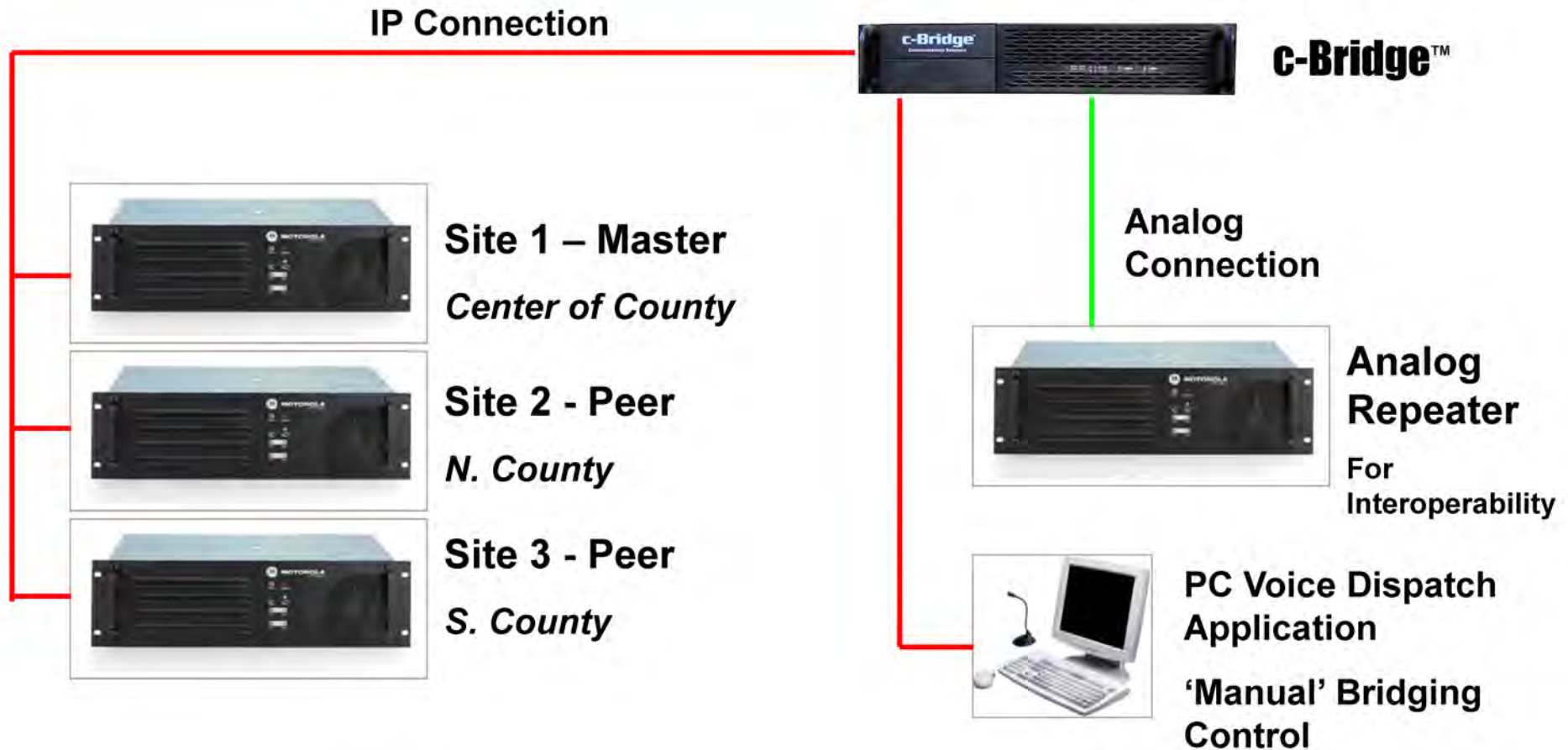
- **The c-Bridge™ can handle voice and data calls**
 - Group Calls, All Calls and Private Calls
 - GPS, Call Alert, Emergency Alert, Radio Query, Radio Enable/Disable, etc.



- **Analog Interface Ports can be added to a c-Bridge™, making it an interoperability Gateway (up to 4 Analog Ports per Gateway)**
 - With a Server/Gateway or a combination of a Server and multiple Gateways, interoperability with **non-MOTOTRBO™** radio systems can be achieved by using control stations, base stations or 4-wire E&M interfaces to access the **non-MOTOTRBO™** systems. This includes analog am, analog fm, and P25 systems
 - Interfacing to analog console systems can also be done through the Analog Interface Ports on a **c-Bridge™** Gateway
 - Interoperability can be enabled/disabled by Talkgroup IDs or a PC Client Dispatch Application

The c-Bridge™

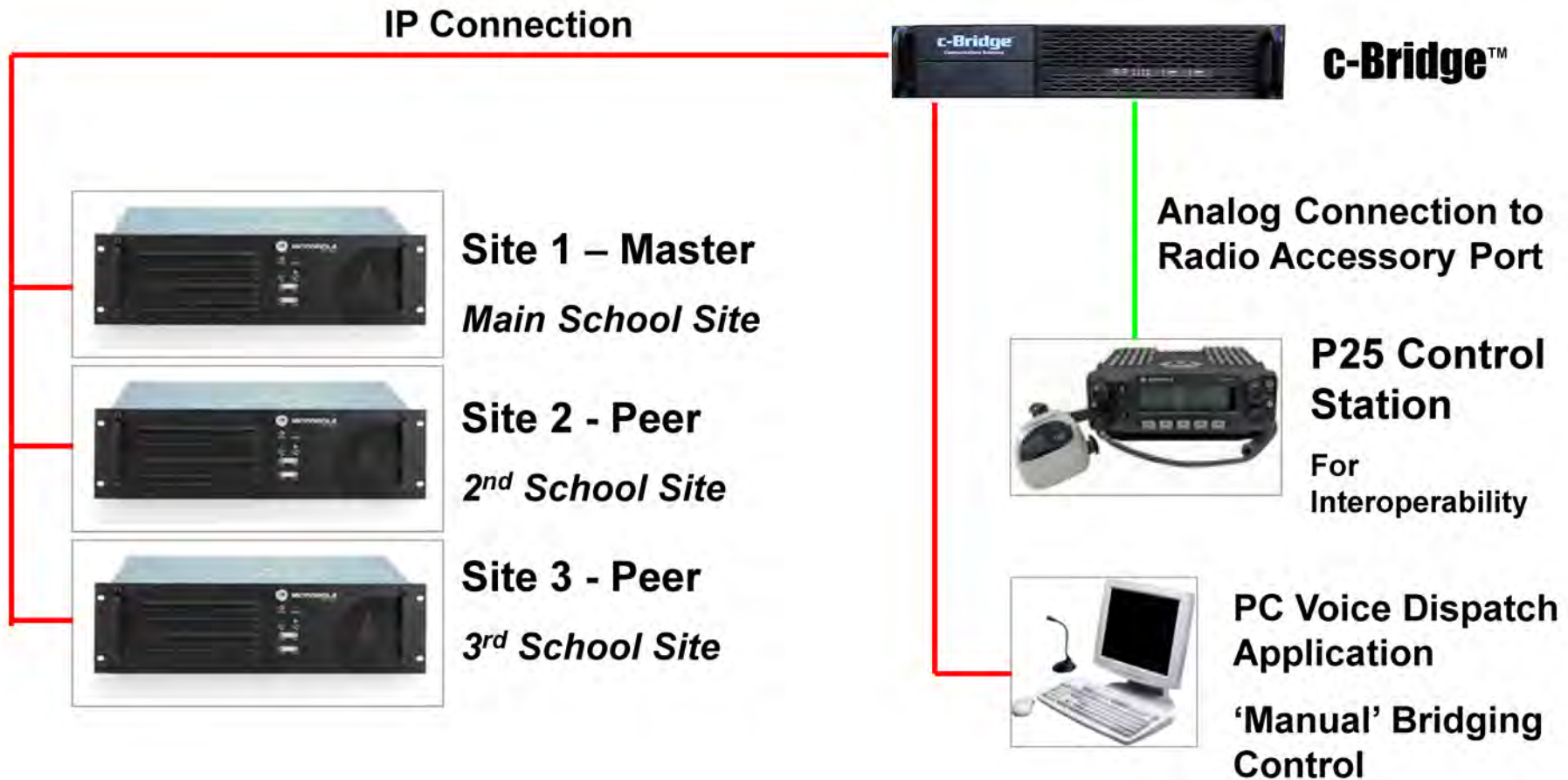
System Example – Analog Interoperability



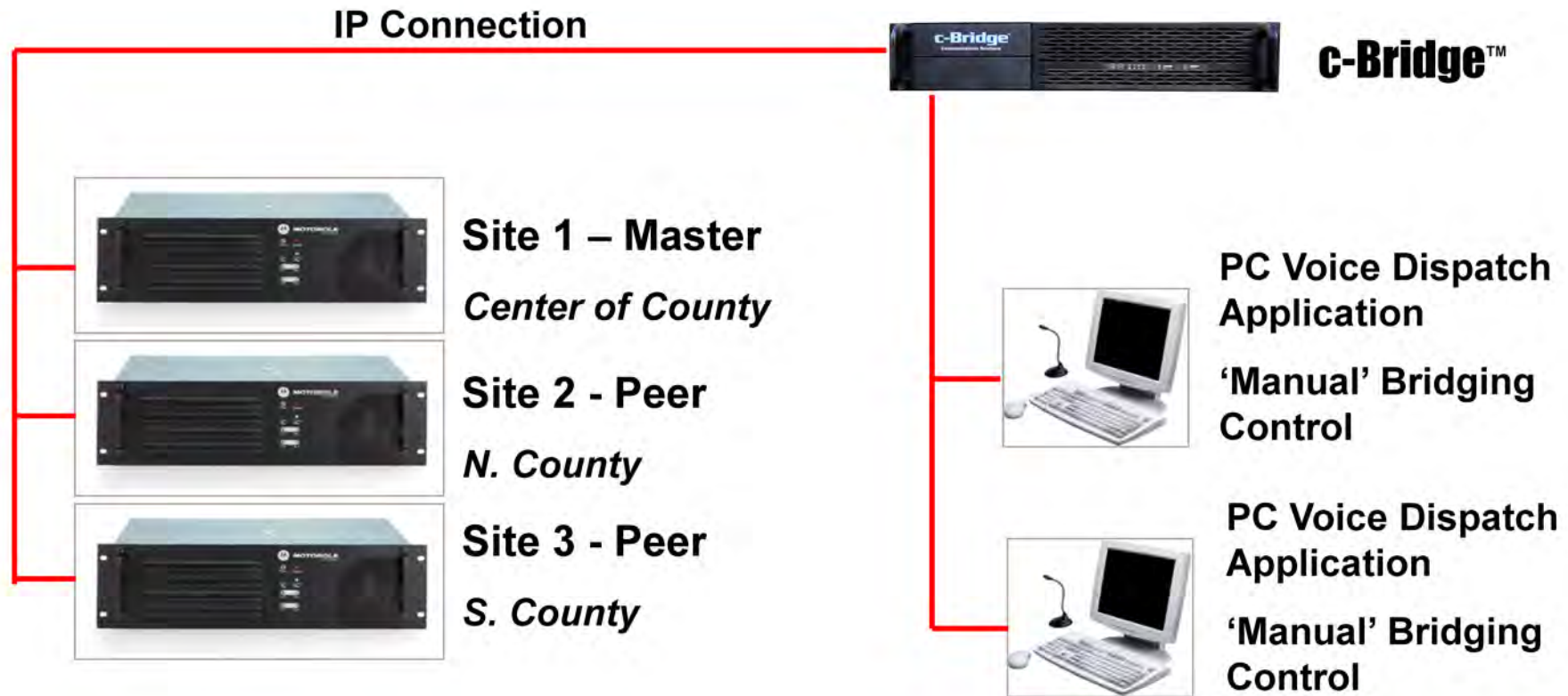
NOTE - The **c-Bridge™** Servers and Gateways pass Voice traffic **ONLY** when configured for Interoperability with non-**MOTOTRBO™** systems. NO data capabilities exist when bridging to non-**MOTOTRBO™** radio systems or consoles

The c-Bridge™

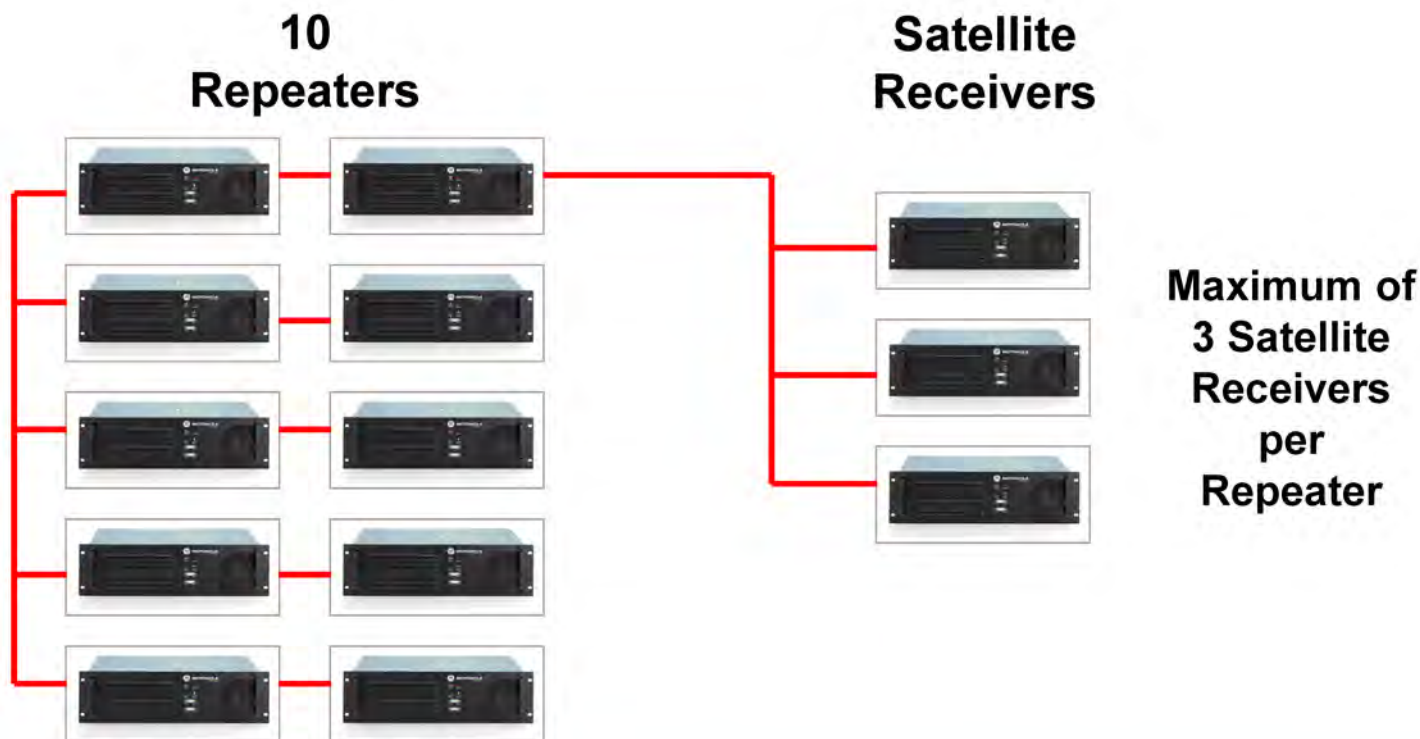
System Example – P25 Interoperability



NOTE - The **c-Bridge™** Servers and Gateways pass Voice traffic **ONLY** when configured for Interoperability with non-MOTOTRBO™ systems. NO data capabilities exist when bridging to non-MOTOTRBO™ radio systems or consoles



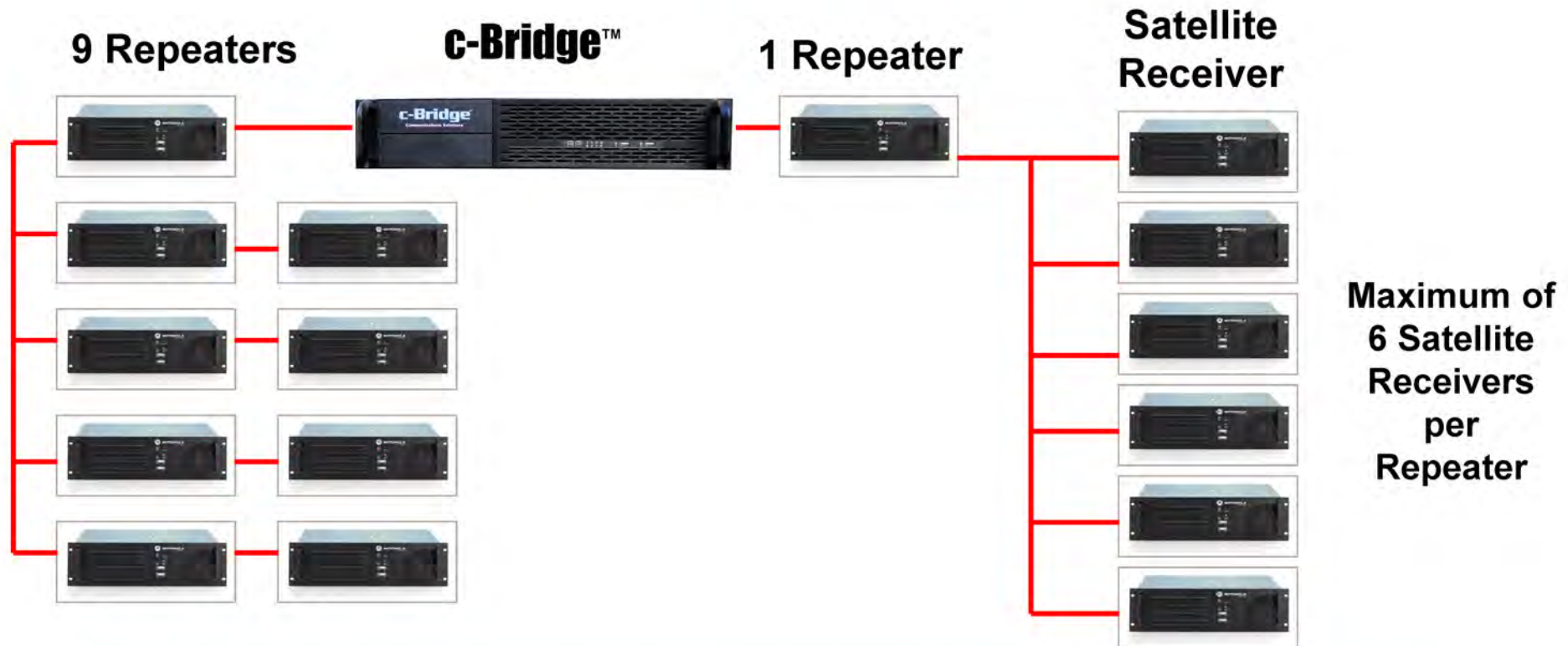
The **c-Bridge™** can be used as an “IP Gateway”, allowing for IP-based Remote Voice Dispatch, where control stations or tone-control systems are not needed



MOTOTRBO™ IP Site Connect Systems can be somewhat limited when using Voting and Satellite Receivers. For example, with 10 Repeaters, a maximum of only 3 Satellite Receivers Per Repeater may be used

The c-Bridge™

Receiver Voting System with a c-Bridge™



A c-Bridge™ can be used to expand this limit to 6 Satellite Receivers per Repeater
We could even have up to 50 Repeaters Configured in this way, with up to 6 Satellite Receivers per Repeater



10 Repeaters/Sites



IP Site Connect operates as a Peer-to-Peer system. Each repeater communicates directly with other repeaters. They do NOT communicate through the Master Repeater.



Each Site must have enough upload bandwidth available to communicate with all 9 other sites.



So with 10 Repeaters in a network, at least 540 kbps *upload* bandwidth is needed at each site. More is needed if RDAC is used.



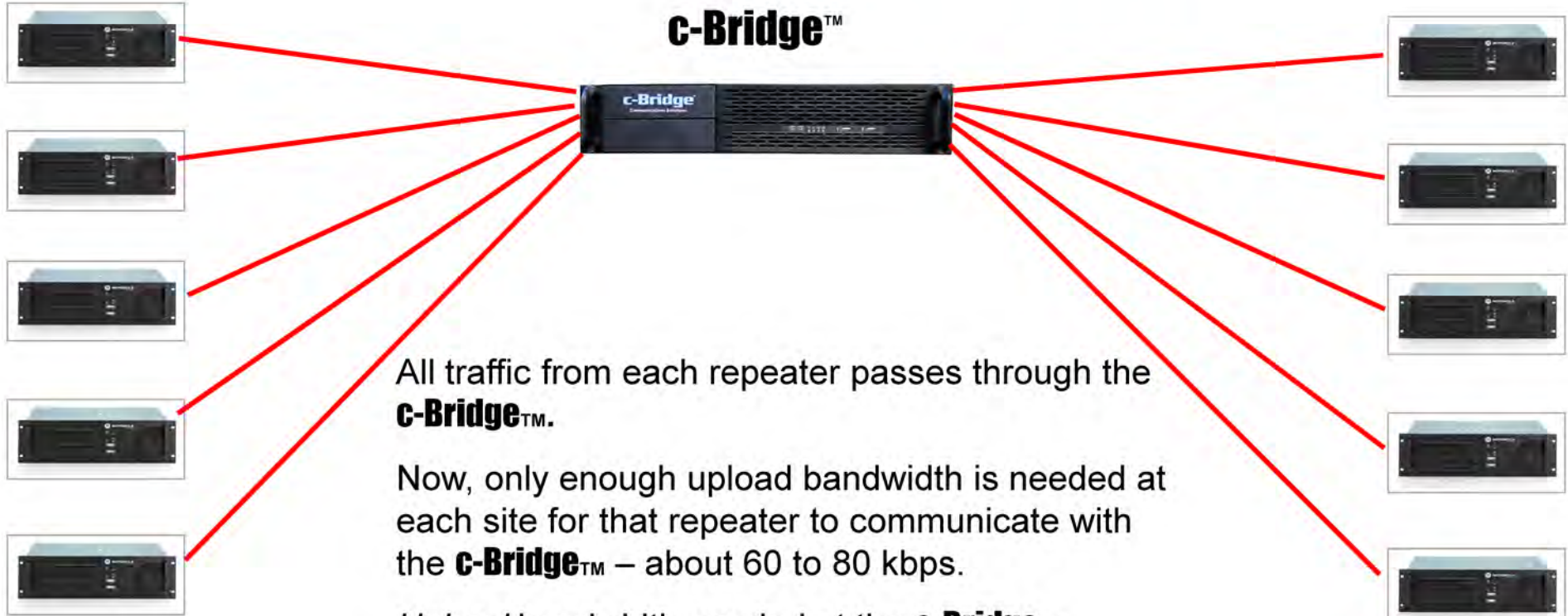
C-Bridge™ Bridging Controllers can be used to reduce the network bandwidth needed in IP Site Connect Systems where bandwidth is limited at some sites.

The c-Bridge™

Reduce Site Bandwidth Needs



c-Bridge™



All traffic from each repeater passes through the **c-Bridge™**.

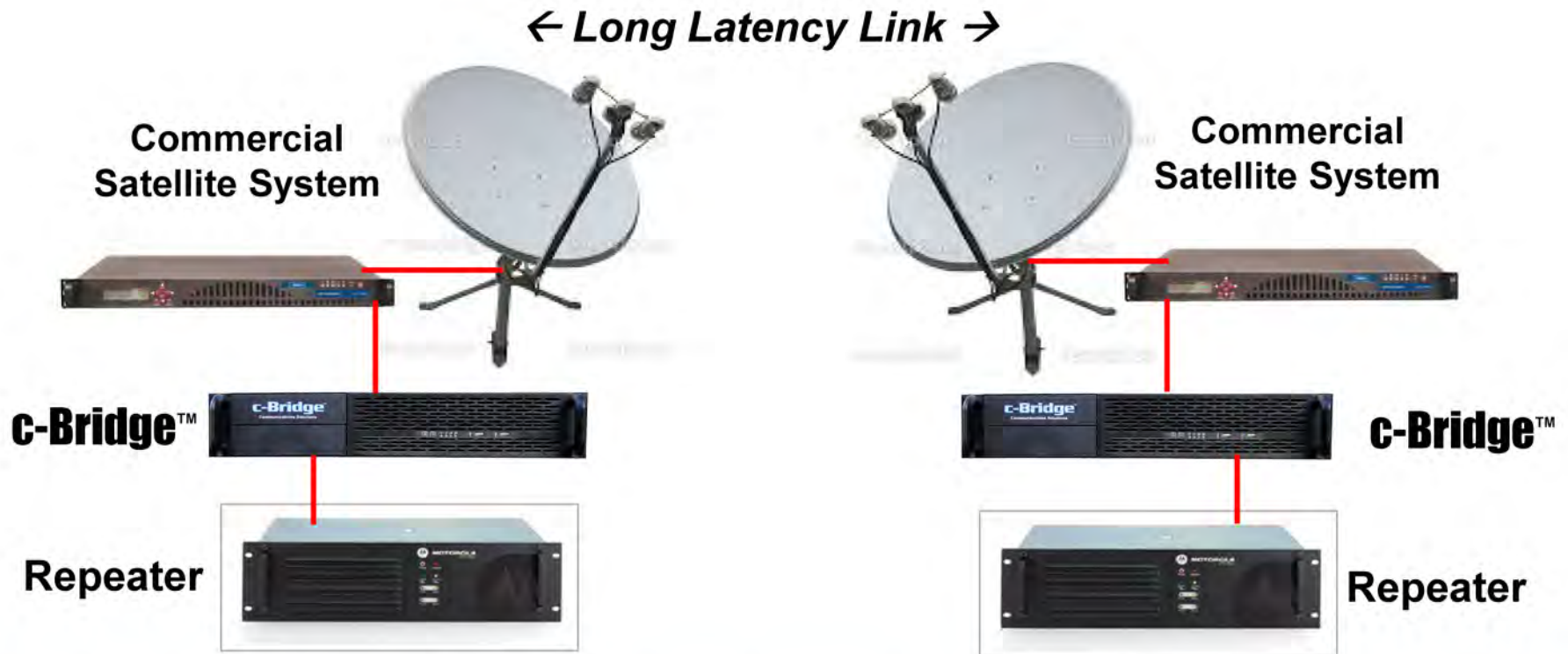
Now, only enough upload bandwidth is needed at each site for that repeater to communicate with the **c-Bridge™** – about 60 to 80 kbps.

Upload bandwidth needed at the **c-Bridge™** location will be 800 kbps to 1 Mbps.

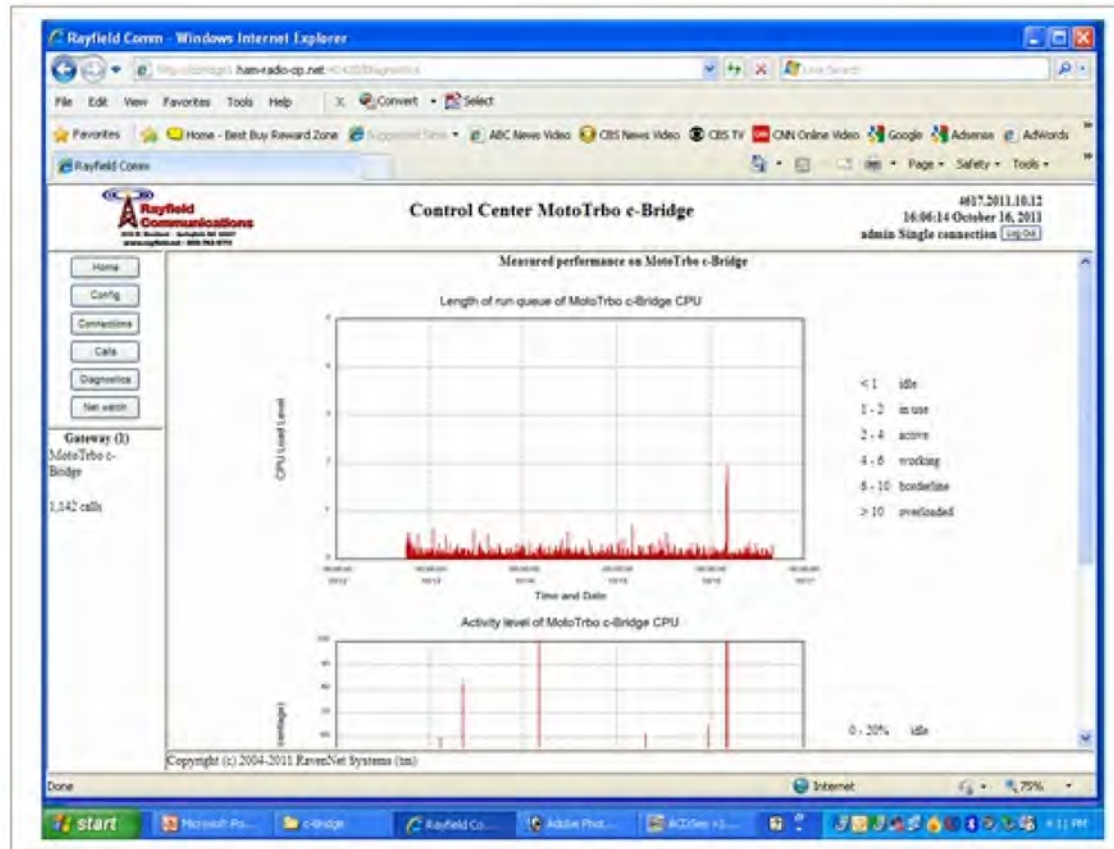
C-Bridge™ Bridging Controllers can be used to reduce the network bandwidth needed in IP Site Connect Systems where bandwidth is limited at some sites.

The c-Bridge™

IP Transport with Long Latencies and High Jitter Rates



c-Bridge™ Bridging Controllers can be used to allow the use of IP networks with long latencies and/or high jitter rates, such as satellite links that are often unsuitable for IP Site Connect systems



The C-Bridge™ Includes Built-In Real-Time Diagnostics for Troubleshooting IP Network Problems and Monitoring System Operation, which can prove to be invaluable when IP Network issues come up



1. IP Site Connect System Expansion (Virtually Unlimited Sites)
2. Flexible Call Routing (True System-Wide All Call/Emergency Call)
3. Handles Voice and Data Calls
4. Interoperability (analog radio, digital radio, analog consoles)
5. IP-Based Voice Dispatch with Bridging/Interoperability Control
6. Expand Receiver Voting Systems (up to 6 Receivers per Repeater/Up to 50 Repeaters per System)
7. Reduce Network Bandwidth Needs at Sites
8. Network Repeaters through Satellites (Problematic Networks)
9. IP Network Diagnostics and System Monitoring



- **Schools**
 - More than 15 Repeaters in System
 - Interoperability with Public Safety
 - IP-Based Voice Dispatch
- **Mining Operations**
 - System-Wide All Call and Emergency Calls
- **Small and Rural Public Safety**
 - Interoperability with other agencies
 - Interface with Legacy Analog Consoles
- **Enterprise**
 - More than 15 Repeaters in System
 - Large Number of Voting Satellite Receivers
 - IP-Based Voice Dispatch
- **All MOTOTRBO™ IP Site Connect Users**
 - IP Network Diagnostics and Monitoring



- The **c-Bridge™** offers an extremely flexible and cost-effective 'system' that can be used to enhance **MOTOTRBO™** conventional and IP Site Connect systems
- By allowing **MOTOTRBO™** systems to be designed with *capabilities that simply don't exist with other DMR systems*



If you'd like to be kept up-to-date on new features as we add them to the **c-Bridge™** as well as learn about examples of how the **c-Bridge™** is being used in 'real world' systems, send us an email and we'll be sure and keep you updated.

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www.rayfield.net



1. Enter IP Network Information (IP Address, etc)
2. Enter MOTOTRBO™ Repeater Information
3. Create Bridge Groups



1. The **c-Bridge™** uses the Linux operating, and specifically the **CentOS** distribution
2. The IP Network information must be entered into the **CentOS** operating system at the 'command line' before any further configuration can be done
3. A monitor and keyboard are connected to the **c-Bridge™** and are used to enter the IP Network Information
4. Once the IP Network Information is set in the **c-Bridge™**, then another computer must be used to configure the **c-Bridge™**
5. The **c-Bridge™** has its own web server, so a web browser is all that is needed to access the **c-Bridge™** configuration screens
6. Configuration and changes can easily be made from a computer on the same LAN to which the **c-Bridge™** is connected, or from any other network through which the **c-Bridge™** can be accessed (including the Internet)

The c-Bridge™

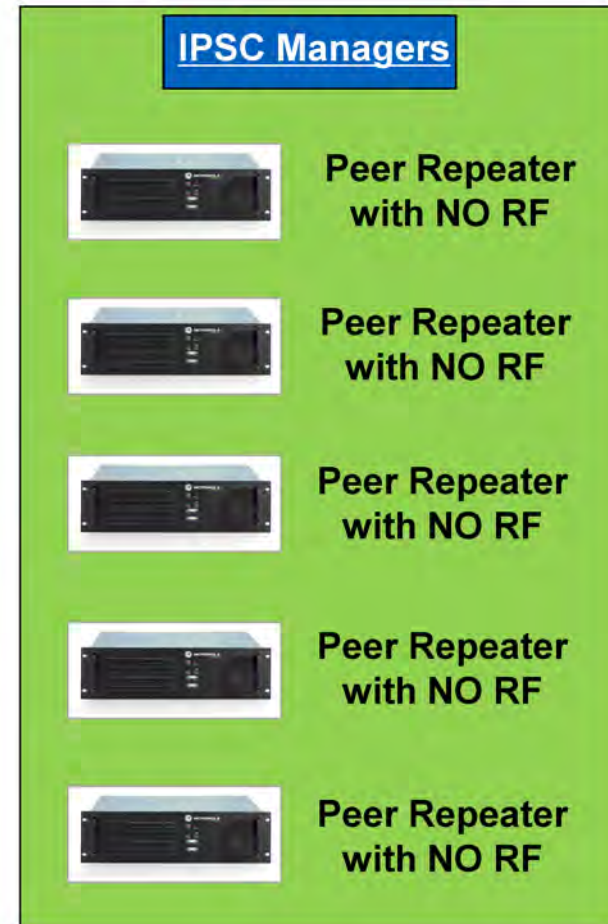
Basic Architecture and Configuration



A **c-Bridge™** emulates a group of Peer Repeaters with No RF.

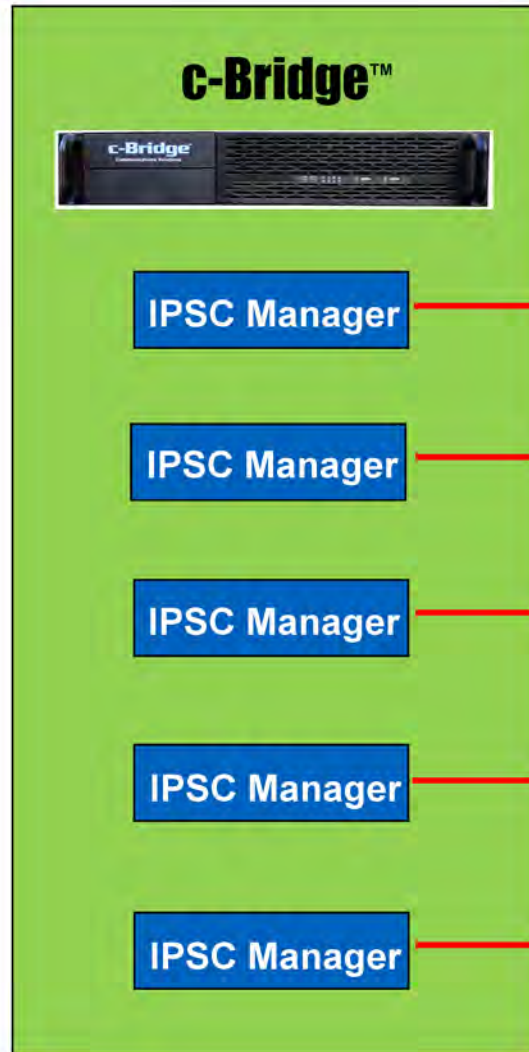
One **c-Bridge™** can emulate up to 50 Repeaters.

Within the **c-Bridge™** Configuration, each Peer Repeater Emulation is referred to as an “IPSC Manager”



The c-Bridge™

Basic Architecture and Configuration



An IPSC Manager is connected to a Master Repeater over an IP network connection (LAN, WAN, Internet)
That Master Repeater can be 'standalone' or other Peer Repeaters can be connected to it.



Master Repeater



Master Repeater



Master Repeater



Master Repeater



Master Repeater



c-Bridge™



Since an IPSC Manager emulates a repeater, then programming an IPSC Manager is very similar to programming a repeater. There just aren't any 'frequencies', since there is no RF.



The screenshot shows a web browser window with the URL `208.71.174.198:42420/mainwelcome`. The page title is "Control Center VM Test" and the user is logged in as "admin". The main content area is titled "Config Webster Co 911 on VM Test" and contains the following configuration fields:

- Descriptive name of this I.P.S.C. Manager: Webster Co 911
- Operate as Master:
- IP address of the Master: 69.111.222.333
- UDP port for the Master: 50001
- Seconds between Keep Alives: 6
- Seconds between Regn. attempts: 20
- UDP port for this I.P.S.C. connection on this box: 60006
- Unique ID for this I.P.S.C. connection (PeerID): 65807
- Silence period to indicate call end (ms): 751
- Authentication key for I.P.S.C. comms: [empty]
- Recipient(s) of email if there are too many Come/Go events: [empty]
- Log KeepAlive Requests:
- Log Registration Requests:
- Manager automatically starts:
- Log events at the XCMP/XNL level:
- Log I.P.S.C. status packets:

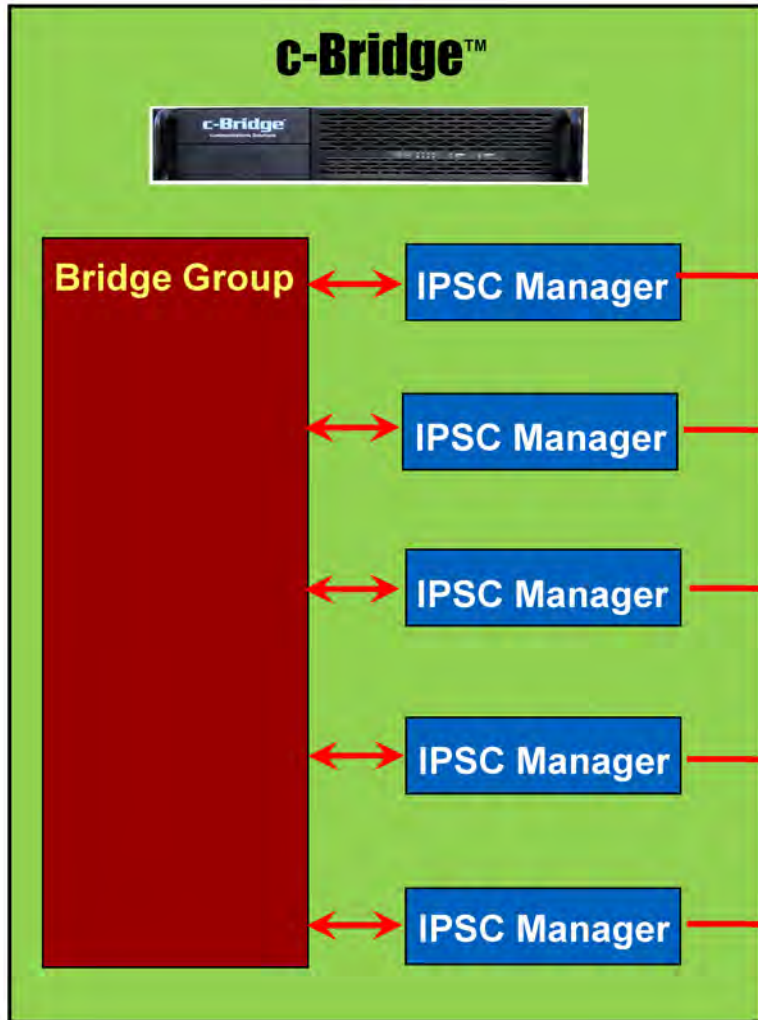
At the bottom of the configuration area, there are buttons for "Available operations", "Accept changes", "Reset changes", and "Go Back".

On the left side, there is a navigation menu with buttons for Home, Config, Calls, Diagnostics, Net watch, and Help. Below the menu, it shows "Gateway (1) VM Test", "Total calls 32 Network 16,015 Local", and "Peers 6".

The footer of the page contains the copyright information: "Copyright © 2014-2024 RavenNet Systems. RavenNet™".

The c-Bridge™

Basic Architecture and Configuration



Bridge Groups are used to bridge between IPSC Managers. This effectively creates bridges between repeaters and groups of repeaters.



Master Repeater



Master Repeater



Master Repeater



Master Repeater



Master Repeater

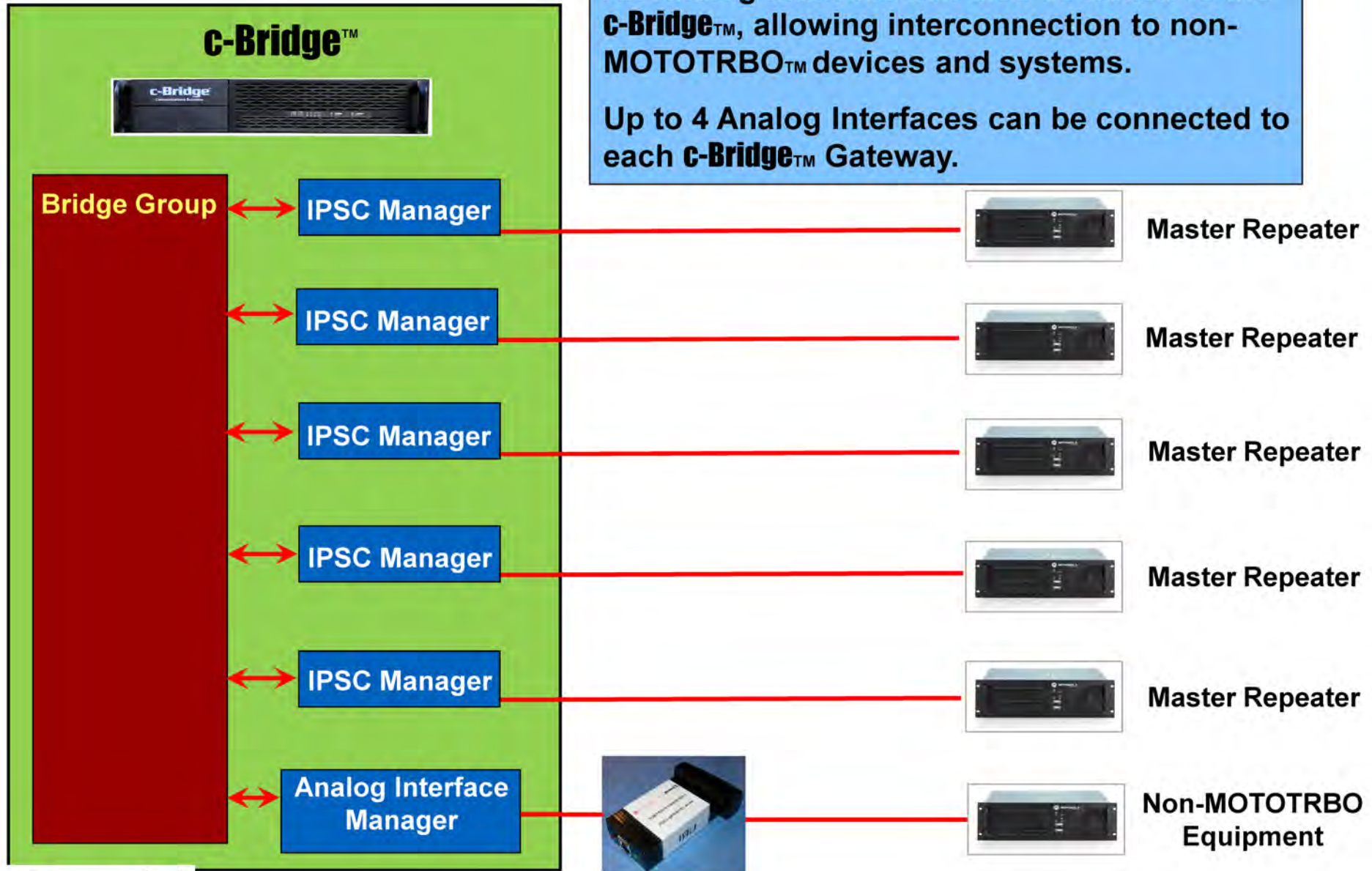
The c-Bridge™

Basic Architecture and Configuration



An Analog Interface can also be added to the **c-Bridge™**, allowing interconnection to non-MOTOTRBO™ devices and systems.

Up to 4 Analog Interfaces can be connected to each **c-Bridge™** Gateway.





<i>Repeater</i>	<i>Slot 1</i>	<i>Slot 2</i>
Repeater 1	Link ID 1	Link ID 2
Repeater 2	Link ID 3	Link ID 4
Repeater 3	Link ID 5	Link ID 6
Repeater 4	Link ID 7	Link ID 8
Repeater 5	Link ID 9	Link ID 10

Each Repeater and its Slots are assigned Link IDs



Bridge Group Name	Talkgroup ID	Repeater Link ID
Bridge Group Main	101	1
Bridge Group Main	220	3
Bridge Group Main	101	4
Bridge Group Main	1002	6
Bridge Group Main	1003	8

In order to 'bridge' between a Talkgroup ID on one Repeater and Slot and another Talkgroup ID on another Repeater and Slot, the desired Talkgroup IDs and Repeater Slots are entered into a Bridge Group. The assigned Link IDs are used to represent which Repeater and Slot is desired



Bridge Group Name	Talkgroup ID	Repeater Link ID	
Bridge Group Main	101	1	← Repeater 1, Slot 1
Bridge Group Main	220	3	← Repeater 2, Slot 1
Bridge Group Main	101	4	← Repeater 2, Slot 2
Bridge Group Main	1002	6	← Repeater 3, Slot 2
Bridge Group Main	1003	8	← Repeater 4, Slot 2

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Bridge Group Main	1002	6	← Repeater 3, Slot 2
Bridge Group Main	1003	8	← Repeater 4, Slot 2

All of the Repeater Slots and Talkgroup IDs that have been assigned the same Bridge Group Name are effectively bridged together. When one of these Repeaters receives a transmission using the associated Talkgroup ID, that transmission will be retransmitted on these other Repeaters and Slots using the programmed Talkgroup IDs.



W0PM | John

cbridge.rayfield.net:42420/mainwelcome

Apps | Bookmarks | Google | Distributors & Manufa... | FCC | MOTOTRBO GPS | Forums | VoIP - Rayfield | c-Bridge Controllers | Engineering | Business | Training/Webinars | Misc. | JW.org | Domain Lookup | 3CX | Other bookmarks

Rayfield Communications
2018 W. Woodland - Springfield, MO 65807
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Control Center W0PM

8515.2015.4.24
16:13:56 June 10, 2015 CST
admin | Single connection | Log Out

Manage Bridge Groups on W0PM

Connection type: all | Bridge Groups: NA-3 | Site name: all | Link ID: all | Group ID: all

Bridge Group ↑	Site Name ↑	Link ID ↑	Alert on Absent ↑	Group ID ↑
NA-3	W0PM	1	<input type="checkbox"/>	3

I.P.S.C. | Add Entry | Delete Entry | Modify Entry

edit	Control Center Outbound	NA-3	3	silence	46.140.100.107		SWISS-DMR-II NorthAmerica
edit	Control Center Outbound	NA-3	3	silence	cb-cc-1.dmr-marc.net	cb-cc-2.dmr-marc.net	DMR-MARC NorthAmerica
edit	RnIpc	NA-3	PC-11	2	silence	yes	
edit	RnIpc	NA-3	wxpc	2	silence	yes	
edit	I.P.S.C.	NA-3	W0PM	1	silence		3

Gateway (1)
W0PM

Total calls
27,858 Network
6 Local

Peers 1
CC-CC 9

(c) Ravennet Systems 2004-2014

Start | 4:13 PM



VM Test | 208.71.174.198:42420/mainwelcome

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Control Center VM Test

8515.2015.4.24
16:11:58 June 10, 2015 UTC
admin | Single connection | Log Out

Webster Co 911 | Marshfield | 65807 | Fordland | Elkland | Niangua | Seymour | **MOSWIN c-Bridge**

Home | Config | Calls | Diagnostics | Net watch | Help

start time	duration	ch	name	source peer id	source radio id	source peer alias	source radio alias	Bridge Group	Dest. RadioId	RSSI (dBm)	Site name	Loss rate
History												
16:03:07.692 Jun 10	1.4	2	WC-2	g10004	83004	Niangua	83004	1	1	-55.7	VM Test	0.0%
16:03:02.712 Jun 10	2.5	2	WC-2	g10004	83003	Niangua	83003	1	1	-55.9	VM Test	0.0%
16:02:59.471 Jun 10	1.4	2	WC-2	g10004	83004	Niangua	83004	1	1	-55.9	VM Test	0.0%
16:02:56.111 Jun 10	1.4	2	WC-2	g10004	83003	Niangua	83003	1	1	-55.6	VM Test	0.0%
16:02:54.010 Jun 10	0.7	2	WC-2	g10004	83004	Niangua	83004	1	1	-122.0	VM Test	0.0%
16:02:49.769 Jun 10	1.1	2	WC-2	g10004	83003	Niangua	83003	1	1	-55.8	VM Test	0.0%
16:02:32.488 Jun 10	1.8	2	WC-2	g10004	83004	Niangua	83004	1	1	-63.5	VM Test	0.0%
15:59:52.249 Jun 10	2.5	1	WC-1	g10001	911	Marshfield	911	1	1	-65.9	VM Test	0.0%
15:59:48.047 Jun 10	1.4	1	WC-1	g10002	1881	Fordland	1881	1	1	-78.1	VM Test	0.0%
15:55:53.727 Jun 10	2.9	1	WC-1	g10001	911	Marshfield	911	1	1	-61.3	VM Test	0.0%
15:55:49.946 Jun 10	2.5	1	WC-1	g10005	188	Seymour	188-P	1	1	-107.9	VM Test	2.0%
15:55:45.206 Jun 10	2.9	1	WC-1	g10001	911	Marshfield	911	1	1	-57.0	VM Test	0.0%
15:55:25.465 Jun 10	2.5	1	WC-1	g10001	911	Marshfield	911	1	1	-65.9	VM Test	0.0%
15:52:17.025 Jun 10	2.5	1	WC-1	g10001	911	Marshfield	911	1	1	-65.7	VM Test	0.0%
15:52:10.964 Jun 10	2.9	1	WC-1	g10002	1881	Fordland	1881	1	1	-66.9	VM Test	0.0%

Gateway (1) VM Test
Total calls 32 Network 16,024 Local
Peers 6

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VM Test

John

208.71.174.198:42420/mainwelcome

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Control Center VM Test

8515.2015.4.24
16:13:40 June 10, 2015 UTC
admin [Single connection](#) [Log Out](#)

Home

Config

Calls

Diagnostics

Net watch

Help

Control Center load level for VM Test

Number of Keep-Alives ignored by Webster Co 911 10002

Time and Date	Count
15:00:00 Jun 10	0
15:30:00 Jun 10	0
16:00:00 Jun 10	1
16:30:00 Jun 10	0
17:00:00 Jun 10	0

Round trip time for Keep-Alives to/from Webster Co 911 10002

Time and Date	seconds
15:00:00 Jun 10	< 100 ms
15:30:00 Jun 10	< 100 ms
16:00:00 Jun 10	< 100 ms
16:30:00 Jun 10	< 100 ms
17:00:00 Jun 10	< 100 ms

0 excellent

0 - 1 very good

1 - 2 good

2 - 3 poor

3 - 4 very poor

> 4 bad

Gateway (1)
VM Test

Total calls
32 Network
16.024 Local

Peers 6

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Control Center VM Test

8515.2015.4.24
16:13:53 June 10, 2015 UTC
admin [Single connection](#) [Log Out](#)

Home
Config
Calls
Diagnostics
Net watch
Help

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Round trip time for Keep-Alives to/from Webster Co 911 10002

< 100 ms	excellent
100 - 200	very good
200 - 400	good
400 - 600	poor
600 - 1000	very poor
> 1000	bad

Measured round trip times for protocol packets with I.P.S.C. Manager 1 (Webster Co 911) and PeerId 10002

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VM Test

John

208.71.174.198:42420/mainwelcome

2018 W. Woodland - Springfield, MO 65807
www.rayfield.net - 800-743-9711

Control Center VM Test

8515.2015.4.24
16:15:48 June 10, 2015 UTC
admin

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Control Center load level for VM Test

Number of Keep-Alives ignored by Webster Co 911

Count

0 excellent

0 - 1 very good

1 - 2 good

2 - 3 poor

3 - 4 very poor

> 4 bad

seconds

< 100 ms excellent

100 - 200 very good

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VM Test | John

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www.rayfield.net - 800-743-9711

Control Center VM Test

8515.2015.4.24
16:16:13 June 10, 2015 UTC
admin | Single connection | Log Out

- Home
- Config
- Calls
- Diagnostics
- Net watch
- Help

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Round trip time for Keep-Alives to/from Webster Co 911

< 100 ms	excellent
100 - 200	very good
200 - 400	good
400 - 600	poor
600 - 1000	very poor
> 1000	bad

Measured round trip times for protocol packets with I.P.S.C. Manager 1 (Webster Co 911)

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Start | 11:16 AM



VM Test

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John

Control Center VM Test

8515.2015.4.24
16:17:24 June 10, 2015 UTC
admin [Single connection](#) [Log Out](#)

Home

Config

Calls

Diagnostics

Net watch

Help

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Control Center load level for VM Test

Number of Keep-Alives ignored by Webster Co 911 65001

0 excellent

0 - 1 very good

1 - 2 good

2 - 3 poor

3 - 4 very poor

> 4 bad

Round trip time for Keep-Alives to/from Webster Co 911 65001

< 100 ms excellent

100 - 200 very good

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VM Test | John

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Control Center VM Test

8515.2015.4.24
16:17:48 June 10, 2015 UTC
admin | Single connection | Log Out

- Home
- Config
- Calls
- Diagnostics
- Net watch
- Help

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Round trip time for Keep-Alives to/from Webster Co 911 65001

Elapsed Milliseconds	Quality
< 100 ms	excellent
100 - 200	very good
200 - 400	good
400 - 600	poor
600 - 1000	very poor
> 1000	bad

Measured round trip times for protocol packets with I.P.S.C. Manager 1 (Webster Co 911) and PeerId 65001

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VM Test | John

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Control Center VM Test

8515.2015.4.24
16:18:43 June 10, 2015 UTC
admin | Single connection | Log Out

Control Center load level for VM Test

Percentage of dropped ping packets.. VM Test -- 8.8.8.8.

Time and Date	Percentage of packets dropped
00:00:00 Jun 7	0
00:00:00 Jun 8	0
00:00:00 Jun 9	0
00:00:00 Jun 10	0
00:00:00 Jun 11	0

0 Perfect
0-1 OK
1-2 borderline
2-3 poor
> 3 horrible

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 6

Round trip time for ping packets.. VM Test -- 8.8.8.8.

Time and Date	ime(ms)
00:00:00 Jun 7	0
00:00:00 Jun 8	0
00:00:00 Jun 9	0
00:00:00 Jun 10	0
00:00:00 Jun 11	0

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Start | 11:18 AM



VM Test | John

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Control Center VM Test

8515.2015.4.24
16:19:03 June 10, 2015 UTC
admin | Single connection | Log Out

- Home
- Config
- Calls
- Diagnostics
- Net watch
- Help

Gateway (1)
VM Test

Total calls
32 Network
16,024 Local

Peers 5

0
00:00:00 Jun 7 | 00:00:00 Jun 8 | 00:00:00 Jun 9 | 00:00:00 Jun 10 | 00:00:00 Jun 11
Time and Date

Round trip time for ping packets.. VM Test -- 8.8.8.8.

Avg. round trip time(ms)
100
75
50
25
10
7.5
5.0
2.5
1.0
00:00:00 Jun 7 | 00:00:00 Jun 8 | 00:00:00 Jun 9 | 00:00:00 Jun 10 | 00:00:00 Jun 11
Time and Date

Network Connectivity between Control Center (VM Test) & 8.8.8.8
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Start | 11:19 AM



We'll be developing new training videos that will go into more detail of setting up a **c-Bridge™**. These videos will be available on through our website and on **YouTube™**.

If you'd like to be kept up-to-date on these new videos and on new features as we add them to the **c-Bridge™**, send us an email and we'll be sure and keep you updated.

johnjr@rayfield.net

www.rayfield.net



Thank you...



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